Managing open access (OA) workflows at the University of St Andrews: challenges and Pathfinder solutions

Updated from a paper presented at the UKSG seminar 'Managing Open Access', London, 20 May 2014

This article arose out of a presentation given to the UKSG seminar on 'Managing Open Access: pain points and workflows'. It presents a case study on the workflows in place at the University of St Andrews and how these are developing to meet funder compliance policies and the challenge of the new HEFCE Research Excellence Framework (REF) open access (OA) policy. The case study describes the research environment at St Andrews and in particular the challenges faced and how these may be answered. Since the seminar in May 2014, the Open Access Research Publications Support Team has engaged in a 'Lean' exercise to evaluate and streamline workflows within the institution. St Andrews is also now a partner in the LOCH project, one of the Jisc Pathfinder projects. The paper gives an update on recent activities and looks at strategies and practical ideas for improving workflows and removing pain points.

Research environment

The University of St Andrews is a research-intensive institution. In 2012/13 it received £40m of research funding income, primarily from Research Councils UK (RCUK), Wellcome Trust and the European Research Council (ERC). In common with its peer higher education institutions (HEIs) St Andrews strives to achieve excellent rankings in league tables and in research assessment exercises. The emphasis on research within the institution has engendered a natural progression towards the development of research support services. Implicit is the recognition of open access (OA) as a factor in promoting the visibility and usage of research publications, of widening access and providing an environment which can facilitate increased research impact. With the advent of recent government and funder policies, systems and workflows to support open access have moved from being a desirable accessory to a 'must have' requirement.

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Systems and support

St Andrews' introduction of key systems and staffing to support research information and OA has been described in 2009[1] and 2011[2]. A DSpace repository (Research@StAndrews:FullText) was established in 2006[3]. A connected Pure current research information system (CRIS) was implemented in 2010 together with a portal interface to showcase St Andrews research[4]. St Andrews has had a mandate for the deposit of electronic research theses since 2007. It offers a Journal Hosting Service based on Open Journal Systems (OJS) software and to date hosts eight journals[5]. A support service for research data is currently being scoped. The Open Access and Research Publications Support Team (OARPS) is now a key Library

"… a natural progression towards the development of research support services."

team. It originated from Library service initiatives to support OA. This then developed into a practical support role in publications checking for the 2014 Research Excellence Framework (REF) assessment exercise.

Funder mandates

A real turning point came with the Department for Business, Innovation & Skills (BIS) fund in 2013[6] and the subsequent announcement of the new RCUK open access policy in April 2013[7]. Block grants for OA publication have been a real catalyst to implementing robust workflows to support the policy. The funds listed in Table 1 are managed and administered centrally by the Library. The reinvigoration of external funder OA mandates has been very influential on the development of services. It has enabled investment in staffing for the OARPS team and has raised the team's profile within the institution. We also operate a small central fund for gold article processing charges (APC) payments for entirely OA journals, i.e. non-hybrid journals, where no other source of funding exists – mainly taken up by early career researchers to date.

"Block grants for OA publication have been a real catalyst …"

BIS fund 2013	£137k
RCUK fund 2013/4	£203k
RCUK fund 2014/5	£239k
Wellcome grant 2012/3	£20k
Institutional fund 2013/4	£25k

Table 1. University of St Andrews central open access funds managed and administered by the Library

Funding has also presented a challenge centred round the selection and management of appropriate publisher memberships and pre-pay schemes in order to obtain value for money on APCs by means of discounts. These include schemes with BioMed Central, Royal Society, Royal Society of Chemistry, Wiley, SAGE and PLOS.

Institutional policy and players

Until 2013, the institutional view of open access for research publications was not formalized in any policy statements. The flurry of activity by funders in 2013 influenced the institution to issue a statement on publications[8] and this also acknowledged the role of the Library in administering open access compliance. The statement encourages OA and although broadly favouring green, it acknowledges the place of gold and paid APCs when funding is available or when that route offers advantages. Co-ordinating activities are focused on an Open Access Steering group and the University Research Forum. The Library works closely with the Research Policy Office, which takes a lead role in research assessment. The most important players of all are authors and researchers and for an OA policy to be effective they need to feel engaged with the process.

Research assessment

The policy for open access in the post-2014 Research Excellence Framework (HEFCE 2014/07)[9], announced in March 2014, is a game changer. The key element is that to be eligible for the next REF, final peer-reviewed manuscripts, both publication metadata and full text, must have been deposited in an institutional (IR) or subject repository *upon acceptance for publication*. Making the point of acceptance the time for deposit pushes the dialogue and information-gathering for journal articles and conference proceedings to a much earlier stage in OA workflows. It also very much promotes green OA, whereas the majority of funder mandates promote gold. The association of OA requirements with the research assessment agenda is a potentially sensitive area for higher education institutions and there is much here to challenge our support services.

Our key message

We distilled our guidance into one slide (see Figure 1) and we use this for support activities.

- Check the terms of your research grant
- Check your publisher's policy and copyright terms
- See Library web pages for guidance and contact open-access-support@st-andrews.ac.uk for advice
- **Keep your accepted manuscript and deposit in Pure**
- Acknowledge funders including Grant IDs and link Projects to Publications in Pure
- Provide statements on access to underlying data and links where possible
- Use the University's finance detail code (4215) if paying OA fees

Figure 1. Actions for open access

The question is whether this is enough to make these actions happen spontaneously. What is instructive is to unpick all these assumptions and then we really start to analyse the complexities of embedding OA workflows as a way of life in the institution. We also get to the heart of the challenges we face.

Challenges and solutions

Has something been published?

A very basic question is how a central team can get to know about new publications so that support and dialogue can begin. The natural dialogue of researchers is with their publishers, not their CRIS or IR or their open access team. The University strongly encourages local deposit but there is no institutional mandate. We know that we only get a percentage of publications recorded at the time of publication. The challenge is to get researchers to tell us about publication and at minimum to deposit metadata in Pure.

We can work to influence author activity and culture and try to integrate this deposit process into the researchers' workflow when publishing. We currently monitor content deposited into Pure with full text. The next stage may be to monitor all new publications entered into Pure, regardless of full text being attached. Some answers may lie in alerting services or workflows where publisher metadata can be pushed or pulled into institutional systems at a variety of points in the publication workflow. This will not be easy or quick to achieve, but somehow the process has to be made easier for authors and they have to be persuaded of the benefits of engaging in a dialogue, so that we are ready to support them.

> "The challenge is to get researchers to tell us about publication …"

Do we find out about a publication in time to give open access advice?

Timing is very important. Can we get into the publishing dialogue early enough to support and advise on gold or green options? Do authors understand the varied choices offered by publishers or understand if journals are compliant with funder policies? Do authors even know that their funder has a mandate or that funds are available? Our support team don't often see the publisher submission process interface and it can be hard to give advice when the process is unknown.

Opening up publisher systems to support staff as well as authors would be very helpful. It would also be valuable to have more standardized publisher submission systems, screens, terminology and options offered. Workflows to support the HEFCE open access policy may offer solutions because of insistence in the policy on actions at the point of acceptance for publication.

Is the publication subject to a funder mandate?

Is the publication recorded in our CRIS and linked to a project and funder? Does it have the grant ID clearly recorded and can we reconcile this with information in funder systems? Solutions lie in improving the links and records of publications linked to funders and providing standard acknowledgements, standard metadata, as well as achieving easier identification across institutional and funder systems. Authors also need to be encouraged to link their publications to grants. They are best placed to know these relationships.

> "It can be hard to interpret funder polices …"

Once we know the publication is connected to a grant how do we check for eligibility?

We need to check if we can pay for open access out of central OA publication funds and look closely at the fine print to make the decision. There are many challenges and choices around the allocation model for central funds and the use of specific criteria and priorities to accept requests. It can be hard to interpret funder polices and clarify exactly what the policy says we can pay for. For example, there is still an area of doubt in the RCUK policy with regard to page charges. There are questions over whether a funder provides a central grant or expects APCs to be paid from an individual research grant, for example, ERC. Which content is covered by a funder policy? Does it include conference proceedings or monographs? There is a challenge in keeping up to date with new and fast-changing policies, and policies that have FAQs added as addenda. It is often not easy to understand whether a particular journal is compliant with the latest policy.

A solution is to have well-defined criteria for claims on central funds and to make these as easy to interpret as possible. There may be no option for OA support staff but to absorb and learn the funder and journal policies. The use of a rule and system-based approach that could be interoperable with local institutional systems would be useful. The bottom line is that we probably can't expect authors to become experts in journal compliance.

Once we know that we can authorize an APC, then what is the complexity level of interaction with the publisher?

This is one of the biggest questions of all especially given that we may not expect to influence publisher engagement in these processes too dramatically in the short term. Is there a deal or discount that should be used and does the author get alerted to this? There are challenges in getting paperwork signed off and authorized quickly and dealing with a variety of payment options by invoice or credit card. Publishers use different methods to notify authors of stages in the APC processing workflow. It is a huge task to co-ordinate publishers' financial processing with the author, with departmental administrators, the OA fund administrator in the Library and also with the institutional financial system and accounting procedures. Compliance checks are needed to monitor the timeliness of open access on the publisher's site, the addition of correct licences and the OA visibility and discoverability of publications in hybrid journals where the rest of the content is behind subscription barriers.

Institutional financial workflows

A very real challenge is to understand institutional financial workflows for processing and recording payments. Closely related is knowledge of the level of financial recording we need to provide to meet reporting requirements. Our experience is that finance offices and their processes are not very transparent or easy to understand. An area of difficulty is providing granularity for individual APC payments/publication details. In simple terms, can we find out which payment is for which publication? One example is scarce information recorded against credit card transactions. Consolidated payments and payments scheduled on a payment cycle mean that we can't necessarily expedite individual transactions. The speed of payment required for APCs is not always understood and there can be a risk of publication delays. It is not yet easy to record APCs in existing institutional IRs or CRIS systems and link this to finance systems or publisher systems. Our institution like many others is relying heavily on spreadsheet(s) maintained by the OARPS team which can be analysed by as many criteria as we think could be useful.

A solution may be to consider a third-party intermediary system to process payments and transactions. We tried Jisc APC[10] during the lifetime of the project but did not find any particular benefits in that system. New and interoperable systems are needed, especially ones that interface between publisher systems and local systems. Funders should be asked to provide more clarity about future reporting requirements and consider integrating OA reporting with the grant reporting that is required from principal investigators (PIs) of research projects to systems like the Research Outcomes System and its successor, ResearchFish. If all else fails, there is always the tried and trusted method of comparing your spreadsheet with those of fellow institutions ...

"New and interoperable systems are needed …"

Workflows for green open access

Let us not forget the challenges of green OA and repository deposit. To encourage the deposit of full text we need to continue to advise researchers to deposit the correct version. This requires mediation and a check of the compliance of the version with publisher policies and embargo periods. A great asset is the new open access policy from HEFCE. Despite very real issues about sourcing publication metadata for institutional systems (which is currently done later in the publication workflow from databases such as Web of Science and Scopus) there are very real opportunities here for advocacy and support.

Hit list

We would prioritize publisher workflows and financial processing as key areas for improvement. Very often publisher systems are not set up to deal with the involvement of intermediaries and institutional accounting procedures or to deal with OA transactions at article level. We also need to make the landscape easier for authors. They need to buy in to the process and culture change will only happen if they are supported with time-saving workflows, ready-made metadata and user-friendly interfaces.

Our typical OA workflows usually begin with an author asking a simple question: "I am just about to/have just had a publication accepted for publication. Can you help me with making this open access?" The crucial aspect here is that this researcher *knows* to ask the question. We need all our authors to ask that question.

Integrated open access services

"… there are very real opportunities … for advocacy and support."

Offering a set of OA support services can reinforce the start of the culture change. We offer a journal hosting service which engages with postgraduates and undergraduates. We promote research stories in the news by reporting statistics on publication views and downloads. We publicize landmarks in the increase in OA content in our repository and get involved in Press Office releases to get engagement with authors. We work hard to establish close contact with School administrators. We are learning what motivates authors to buy in to the OA process. We are seeing returning customers, requests for training sessions and an increase in enquiries.

Lean

One exercise which has proved invaluable to us and began with a week-long session of intensive activity in May 2014 is a 'Lean' exercise on OA workflows (see Figure 2). We are fortunate to have a dedicated Lean team as part of the University.[11] The technique is to analyse existing workflows, take every part of the workflow back to basics, question assumptions and brainstorm the process in fine detail. We began with a remit of analysing financial processes for gold APC transactions and aimed to introduce efficiencies across Library, Finance Office and publisher processing.

Once we began our scoping session it became clear that we should look at the OA workflow as a whole and also include green OA and preparation for the HEFCE policy. The key benefits of such an exercise are getting all relevant parties from separate units into one room together and having the time to really explore processes. This was valuable time spent with colleagues in Finance, School administrative staff, academic authors and research office staff. There was a facilitator from the Lean office and we had the opportunity to communicate issues in real depth (see Figure 3).

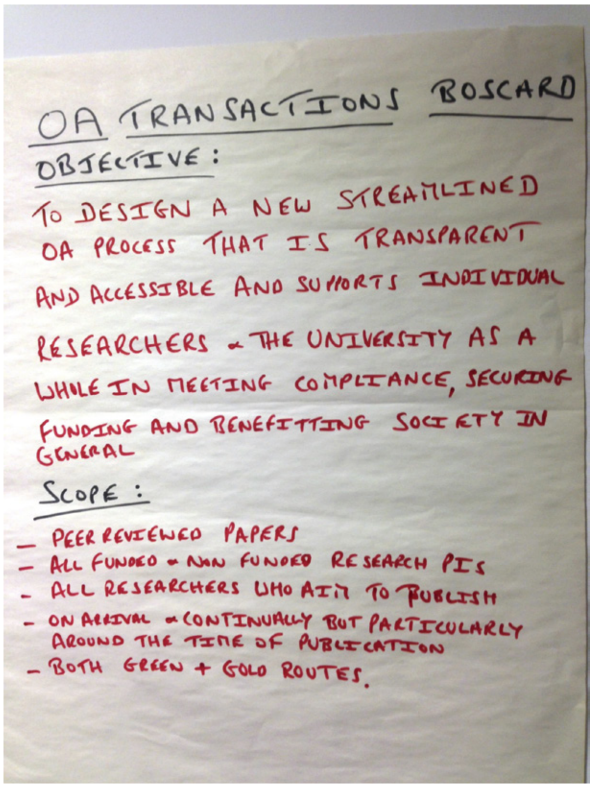

Figure 2. Lean project objectives and scope

The results have been very positive. We now have a detailed action list with timed and named actions which take us though into spring 2015. Specific outcomes have been improvements in processes for APC transactions and the delivery of a focused and simple communications message for what researchers need to do to be compliant for the new HEFCE policy.[12] Because the Lean process is a trusted and approved method of process evaluation within the University, it receives strategic approval and engenders buy-in from management. So it is a strong asset in the workflows and culture change we want to communicate to our authors. We intend to issue a detailed case study of our Lean exercise as one of the outputs of the Lessons in Open Access Compliance for Higher Education LOCH) project.[13]

Figure 3. Lean project mapping out the process

Pathfinder and LOCH

We are now involved in the Jisc Pathfinder projects[14] and specifically in the LOCH project along with Edinburgh and Heriot-Watt Universities. We see this as a real advantage and asset in meeting open access challenges. The LOCH project 'will provide case studies of evidence of best practice in relation to OA workflows and financial management'. In addition it will provide a range of tools to help practitioners improve their services and make it easier for academics to comply with new requirements. The project partners will seek to improve institutional workflows and pilot new services and in particular concentrate on:

- managing OA payments (including a review of current reporting methods and creation of shareable spreadsheet templates for reporting to funders)
- using Pure as a tool to manage OA compliance, verification and reporting
- adapting institutional workflows to pre-empt OA requirements and make compliance as seamless as possible for academics.

For St Andrews, this will translate into specific work on publicizing progress on workflows, such as the Lean project. We will explore how Pure can be adapted to include the system functionality required. Another major activity will be HEFCE REF policy support and guidance and we want to explore mini Pathfinder projects with our Schools to develop models for good practice for compliance. In particular we want to explore tactics for communication and publicity and try out both centralized and decentralized approaches to support.

RCUK compliance reporting 2013 to 2014

We have now prepared our first RCUK compliance report for the period April 2013 to July 2014.[15] A considerable amount has been achieved in this census period. Our compliance percentage is in excess of 70%. We have managed the fund effectively and spent up on our allocation. We have been able to capture and record a detailed set of information on APC payments and we have made this publicly available.[16]

Next steps

We feel confident that we are on the right track with open access support and want the challenges to produce positive outcomes. Our Lean activities, LOCH and our RCUK compliance report give us encouragement. Another positive sign is the increase in content in our repository and we reached a landmark 4,000 full-text items in Summer 2014[17], with a trend of acceleration in the increase of deposits (see Figure 4).

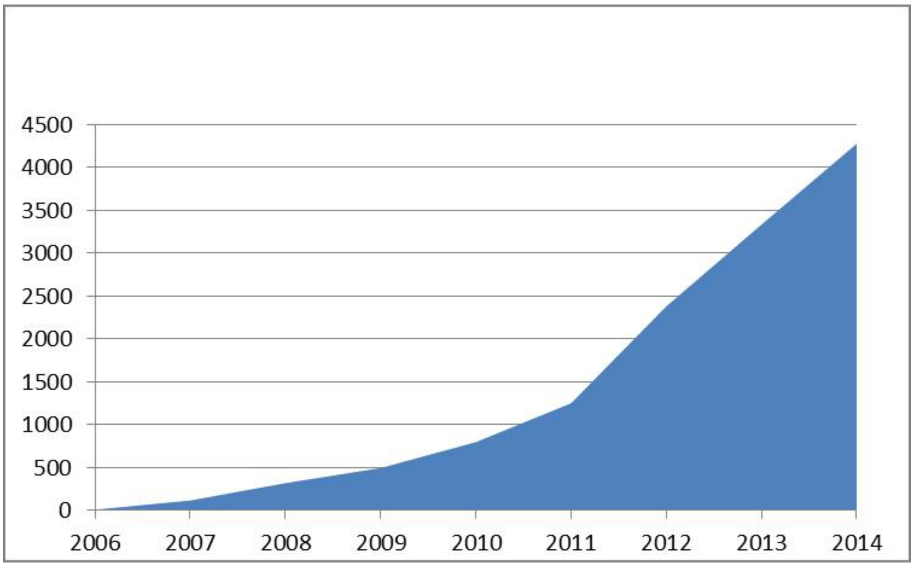

Figure 4. Increase in repository open access content from 2006 to 2014

We are some way from being confident that all our authors know to ask us that key question, “Can you help me to make this publication open access?”. There are still many pain points in processes and a shift in culture is not here yet, but recent evidence suggests that we are further along the path towards that major change.

References

1. Aucock, J, Developing the Digital Research Repository at the University of St Andrews, SCONUL Focus 46, 2009: http://hdl.handle.net/10023/4584 (accessed 4 September 2014).
2. Proven, J and Aucock, J, Increasing uptake at St Andrews: Strategies for developing the research repository, *ALISS Quarterly*, 2011, 6(3), 6–9: http://hdl.handle.net/10023/1824 (accessed 4 September 2014).
3. Research@StAndrews:FullText: http://research-repository.st-andrews.ac.uk/ (accessed 29 August 2014).
4. University of St Andrews research portal: http://risweb.st-andrews.ac.uk/portal/ (accessed 29 August 2014).
5. Journal Hosting Service: http://www.st-andrews.ac.uk/library/services/researchsupport/journalhosting/ (accessed 29 August 2014).
6. *Allocation of additional investment from the Department of Business, Innovation & Skills (BIS) in Open Access: Report to Research Councils UK from the University of St Andrews* http://hdl.handle.net/10023/4199 (accessed 29 August 2014).
7. RCUK policy on open access: http://www.rcuk.ac.uk/research/openaccess/policy/ (accessed 29 August 2014).
8. University of St Andrews Open Access Policy: http://www.st-andrews.ac.uk/library/services/researchsupport/openaccess/oapolicy
9. Policy for open access in the post-2014 Research Excellence Framework (HEFCE 2014/07): http://www.hefce.ac.uk/whatwedo/rsrch/rinfrastruct/oa/policy (accessed 4 September 2014).
10. Jisc APC pilot: https://www.jisc-collections.ac.uk/Jisc-APC-project/About-the-Jisc-APC-pilot/ (accessed 29 August 2014).
11. Lean University: http://www.st-andrews.ac.uk/lean/ (accessed 29 August 2014).
12. Latest open access requirements: http://openaccess.wp.st-andrews.ac.uk/ (accessed 29 August 2014).
13. LOCH project blog: http://libraryblogs.is.ed.ac.uk/loch/2014/06/24/welcome-to-the-loch-blog/ (accessed 29 August 2014).
14. Pathfinder projects home page: http://openaccess.jiscinvolve.org/wp/pathfinder-projects/ (accessed 29 August 2014).
15. University of St Andrews RCUK compliance report: http://hdl.handle.net/10023/5402 (accessed 16 September 2014).
16. University of St Andrews APC data 2013-2014: http://figshare.com/articles/University_of_St_Andrews_APC_data_2013_2014/1150253 (accessed 29 August 2014).
17. OpenAccess@StAndrews blog: http://univstandrews-oaresearch.blogspot.co.uk/search/label/milestone (accessed 29 August 2014).

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